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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,954	02/15/2002	Akira Kaji	K0448/7012	3440
23628	7590	07/01/2004	EXAMINER	
WOLF GREENFIELD & SACKS, PC FEDERAL RESERVE PLAZA 600 ATLANTIC AVENUE BOSTON, MA 02210-2211			STEADMAN, DAVID J	
			ART UNIT	PAPER NUMBER
			1652	

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,954

Applicant(s)

KAJI ET AL.

Examiner

David J Steadman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24,28 and 47-49 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-24,28 and 47-49 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Status of the Application

- [1] Claims 1-24, 28, and 47-49 are pending in the application.
- [2] Applicants' amendment to the claims, filed December 04, 2001, is acknowledged.
- [3] Applicants' amendment to the specification, filed March 12, 2002, is acknowledged.
- [4] Receipt of an information disclosure statement, filed March 12, 2002, is acknowledged.

Lack of Unity of Invention

[5] Lack of unity is required under 35 U.S.C. 121 and 372. This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Group I, claims 1-2, 7-17, 19-22, and 24, drawn to the special technical feature of a ribosome recycling factor (RRF) protein crystal that is orthorhombic and the first claimed method of use, i.e., a method for designing a compound capable of binding to an active site, an accessory binding site or a pocket of a RRF protein, wherein the RRF protein crystal is bipyramidal.

Group II, claim 28, drawn to the special technical feature of an RRF protein crystal that is bipyramidal.

Group III, claim 49, drawn to the special technical feature of an RRF protein inhibitor.

Group IV, claims 1-8, 12-17, and 19-22, drawn to the special technical feature of a method for designing a compound capable of binding to an active site, an accessory binding site or a pocket of a RRF protein, wherein the RRF protein crystal is bipyramidal.

Group V, claims 1-2, 7-8, and 12-22, drawn to the special technical feature of a method for designing a compound capable of binding to an active site, an accessory binding site or a pocket of a RRF protein, wherein the RRF protein is characterized by amino acid displacement.

Group VI, claim 23, drawn to the special technical feature of a method for determining a three-dimensional structure of an RRF protein.

[6] The technical feature linking Groups I-VI is an RRF protein crystal.

[7] The inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical feature for the following reasons:

- According to PCT Rule 13.2 unity of invention exists only when the shared same or corresponding special technical feature is a contribution over the prior art. The inventions of Groups I-V do not relate to a single general inventive concept because they lack the same or corresponding special technical feature. The technical feature of Group I is an orthorhombic protein crystal. According to the translation of the international preliminary examination report filed December 04, 2001, at the time of the invention, it would have been obvious to make such a crystal in view of the teachings of Nelson et al., Kaji et al., or Kanai et al. (all cited in the IDS filed March 12, 2002), at

least for those reasons set forth in the translation of the international preliminary examination report filed December 04, 2001 and reiterated herein.

- According to PCT Rule 13.2 unity of invention exists only when there is a shared same or corresponding special technical feature among the claimed inventions. The orthorhombic protein crystal of Group I does not have unity of invention with the bipyramidal protein crystal of Group II or the methods of Groups IV-V as there is no shared same or corresponding special technical feature among the inventions of Groups I and II, IV, and V.
- 37 CFR 1.475 does not provide for the inclusion of multiple methods of use within the main invention. Accordingly, the method of Group VI does not have unity of invention with the orthorhombic protein crystal of Group VI.

[8] It is noted that claims 1-2, 7-8, 12-17, and 19-22 appear in multiple groupings. These claims will be examined only to the extent the claim reads on the elected subject matter.

[9] Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

[10] Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Steadman, whose telephone number is (571) 272-0942. The Examiner can normally be reached Monday-Friday from 7:30 am to 4:00 pm. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Ponnathapura Achutamurthy, can be reached at (571) 272-0928. The FAX number for submission of official papers to Group 1600 is (703) 872-9306. Draft or informal FAX communications should be directed to (571) 273-0942. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Art Unit receptionist whose telephone number is (703) 308-0196.

David J. Steadman, Ph.D.

Patent Examiner

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 06-24-02